



XENOY™ Resin CL101

Europe-Africa-Middle East: COMMERCIAL

Xenoy CL101 is an unfilled, impact modified PC/PBT blend with excellent solvent resistance and low-temperature ductility. It has a proven track record in off-line painted exterior automotive applications. ISO1043: PC+PBT-I.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	540	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	490	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	50	%	ASTM D 638
Tensile Modulus, 50 mm/min	20900	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	760	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	20300	kgf/cm ²	ASTM D 790
Taber Abrasion, CS-17, 1 kg	30	mg/1000cy	SABIC Method
Tensile Stress, yield, 50 mm/min	52	MPa	ISO 527
Tensile Stress, break, 50 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	50	%	ISO 527
Tensile Modulus, 1 mm/min	2050	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	2000	MPa	ISO 178
Hardness, H358/30	82	MPa	ISO 2039-1
Hardness, Rockwell L	89	-	ISO 2039-2
IMPACT			
Izod Impact, notched, 23°C	63	cm-kgf/cm	ASTM D 256
Izod Impact, notched, 0°C	61	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	45	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U



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IMPACT			
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	50	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	35	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	25	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	58	kJ/m ²	ISO 179/1eA
Charpy Impact, notched, 23°C	30	kJ/m ²	ISO 179/2C
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	25	kJ/m ²	ISO 179/1eA
Charpy Impact, notched, -20°C	25	kJ/m ²	ISO 179/2C
Charpy Impact, notched, -30°C	20	kJ/m ²	ISO 179/2C
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate B/50	120	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	83	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ASTM E 831
Thermal Conductivity	0.18	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	9.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	155	°C	ISO 306
Vicat Softening Temp, Rate B/50	120	°C	ISO 306
Vicat Softening Temp, Rate B/120	123	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	105	°C	ISO 75/Be



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THERMAL			
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	83	°C	ISO 75/Ae
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	105	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	83	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.7 - 1.1	%	SABIC Method
Mold Shrinkage on Tensile Bar, xflow (2) (5)	0.7 - 1.1	%	SABIC Method
Melt Flow Rate, 250°C/5.0 kgf	14	g/10 min	ASTM D 1238
Density	1.22	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 250°C/5.0 kg	13	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+14	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, shorttime, 1.0mm	18	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.3	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.002	-	IEC 60250
Dissipation Factor, 1 MHz	0.02	-	IEC 60250
Relative Permittivity, 50/60 Hz	3.3	-	IEC 60250
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by SABIC-IP



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	90 - 100	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	255 - 270	°C
Nozzle Temperature	250 - 265	°C
Front - Zone 3 Temperature	250 - 270	°C
Middle - Zone 2 Temperature	240 - 265	°C
Rear - Zone 1 Temperature	230 - 250	°C
Hopper Temperature	40 - 60	°C
Mold Temperature	60 - 80	°C



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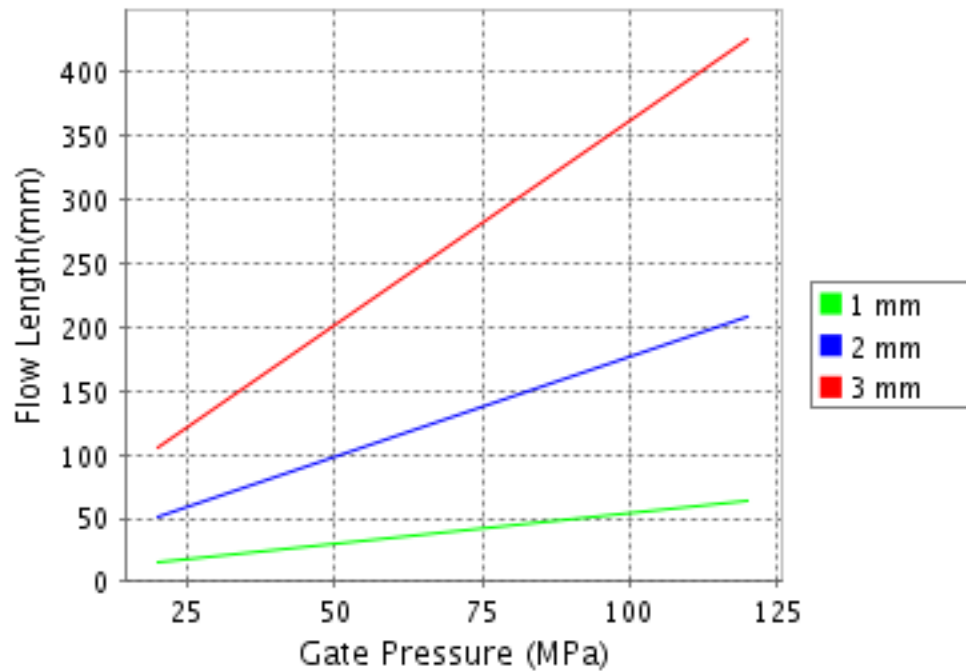
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

XENOY® CL101

Melt Temperature : 265°C

Mold Temperature : 60°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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